

plate to form a first electrode, said contact being made along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench, as essentially claimed in claim 1.

In the Final Office Action, it is acknowledged that Park does not teach the first conductive material (26') contacting the buried plate (23) on the lower portion of the side of the trench.

In the Advisory Action, Examiner argues that Park shows that “the electrode (26') has already electrically contacted the buried plate at the bottom and the side, because the two components (23 and 26') became one plate of the capacitor.” However, it is respectfully submitted that Park does not show *a first conductive material formed in the trench, wherein the first conductive material makes contact to the buried plate...along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench, as essentially claimed in claim 1.* At most, Park shows conductive material (26') contacting the diffusion region (23) only along a portion of the bottom of the trench, but not a first conductive material formed in the trench, wherein the first conductive material makes contact to the buried plate...along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench, as essentially claimed in claim 1.

In the Advisory Action, Examiner maintains that Wu shows “the portion (14A) formed in the trench (10A) clearly contacts the buried plate (11) at the bottom and side,” as shown in Fig. 9. It is respectfully submitted that Wu does not show *a first conductive material formed in the trench, wherein the first conductive material makes contact to the buried plate...along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench, as essentially claimed in claim 1.*

In fact, Figure 9 of Wu clearly illustrates the first conductive material (14A) in trench (10A) contacts the buried plate (11) only at a portion of the sidewalls of the trench (10A). Further, Fig. 9 clearly shows that trench (10A) extends through a bottom portion of trench (10) and through the buried plate (11) such that the first conductive material (14A) that is on the bottom of the trench (10A) does not contact the buried plate (11). This is to be contrasted against claim 1, *wherein the first conductive material makes contact to the buried plate...along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench.*

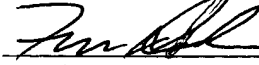
Therefore, claim 1 is believed to be patentable and non-obvious over the combination of Park and Wu because the combination does not teach or suggest *a first conductive material formed in the trench, wherein the first conductive material makes contact to the buried plate...along an entire bottom portion of the trench and along a lower portion of the sidewalls of the trench.* Further, claims 2- 4 and 6, which depend from claim 1, are believed to be patentable and non-obvious over the combination of Park and Wu for at least the same reasons as claim 1.

Further, claim 5, which depends from claim 1, is believed to be patentable and non-obvious over the combination of Park, Wu, and Chang because Park and Wu, as applied to claim 1, is legally deficient as discussed above.

Accordingly, the withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

In view of the foregoing remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable action is respectfully requested.

Respectfully submitted,



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In the Claims (Marked-up version):

1. (Twice Amended) A semiconductor device, comprising:

a trench formed in a substrate;

a diffusion region surrounding the trench to form a buried plate;

a first conductive material formed in the trench, wherein the first conductive material makes

contact to the buried plate to form a first electrode, said contact being made along an entire

bottom portion of the trench and along a lower portion of the sidewalls of the trench [connecting

to the buried plate through bottom portion and a lower portion of the sidewalls of the trench to

form a first electrode];

a second conductive material disposed in the trench to form a second electrode; and

a node dielectric layer formed between the first electrode and the second electrode.